A NOTE ON THE SATYRID BUTTERFLIES, *EREBIA MEDUSA* (D. & S.) AND *EREBIA EPIPSODEA* BUTLER

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The late B. C. S. Warren, in his *Monograph of the genus Erebia* (1936), notes that Elwes (1898) considered the North American satyrid, *Erebia epipsodea* Butler, to be closely akin to the Palaearctic species, *Erebia medusa* (D. & S.). In his monograph Warren dismisses a close relationship between the two species on the grounds that *epipsodea* displays a feature in the male genitalia that sets the species apart from all others of the genus: namely, an armature of coarse spines on the aedeagus. Additionally, in male *epipsodea* the clasp has a spine-bearing shoulder process, a feature not seen in *medusa*.

Unexpectedly, a male *E. medusa psodea* (Hübn.) collected recently by the author in the Pindos mountains of northern Greece, was found to have the precise genital ornamentation claimed by Warren as unique to *epipsodea*. This, a deeply pigmented, spinous armature on the aedeagus, is illustrated in a camera lucida sketch drawn from the Greek specimen of *medusa* (Figure 1). Subsequent examination of the male genitalia of other races of *E. medusa* in the author's collection has confirmed the presence of an aedeagal armature in *E. m. hippomedusa* Ol. from the Höhe Tauern, and in *E. m. medusa* from the Inn valley. In both these subspecies, however, the armature is very weakly pigmented and would escape detection were the preparation not examined under a high magnification.

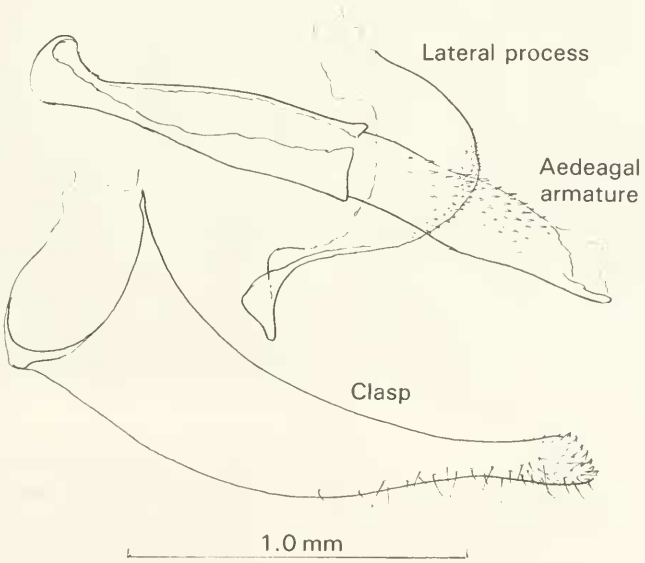

Fig. 1. Male genitalia: *Erebia medusa psodea*, Pindos Mountains, Northern Greece, showing armature on aedeagus and on the lateral process of the penis sheath.

Despite the shortcomings of photography in revealing such minute detail in the specimens illustrated by Warren (1936), scrutiny of the figures in the monograph confirms the presence of an aedeagal armature in at least two of his preparations. Thus, in fig. 335, of *E. m. hippomedusa*, and in fig. 338, of *E. m. polaris* Staud., spines can just be discerned projecting from the dorsal surface of the aedeagus where this is in sharp focus. Warren seems to have overlooked this detail.

Butler (1868) begins his formal description of *Erebia epipsodea* thus: "Alae supra et coloribus fere *psodea* . . ." The phenetic similarity that Butler found so striking is further supported by the above findings.

References

Butler, A. 1868. *Cat. Diurn. Lep. Satyridae Brit. Mus.* 80, 9.
Elwes, H. J. 1898. A revision of the genus *Erebia*. *Trans. Ent. Soc. London* 1898: 169–207.
Warren, B. C. S. 1936. *Monograph of the genus Erebia*. pp. 7 + 407, 104 pls, BM (NH), London.

BOOK REVIEW

Habitat conservation for insects—a neglected green issue, compiled by R. Fry, edited by R. Fry and D. Lonsdale. Middlesex, Amateur Entomologists' Society, 1991, 262 pages, £12, hardback.—Entomologists, almost by definition, are aware of just how important insects are to the environment, they fully realize the tremendous impact that these tiny animals have, and they understand why it is important and interesting to study insects. Unfortunately much of the 'public at large' and even many 'naturalists' are painfully unaware and would dismiss insects as all very well, but not very important when it comes to environmental issues. This book seeks to redress the balance and put forward an entomological perspective into the environmental debate. All too often, well-intended conservation scores an own goal by destroying, for countless invertebrates, a habitat which is 'improved' for some other group of animals or simply for aesthetic appeal. Landowners frequently wish to alter land use, by development or 'improved' agriculture and the relevant planning bodies are unlikely to be swayed by protests over insects, unless they can be persuaded by thoughtful and considered discussion. Armed with this book, local entomologists will be better able to inform local and national conservation bodies, landowners, planning authorities and even Government itself, and hence better control what is done to the environment in the name of progress or farming or conservation. After an introduction explaining (for the initiated and unitiated alike) why insects are important, specific important habitat types are examined in detail, offering practical advice on habitat requirements and management options. The final chapter covers current legislation, the need for recording schemes and advice on how to deal with planning applications. Not only is it important for entomologists to read this book, it is important that they explain to others why they should read it too.

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